

METHOD AND APPARATUS FOR ESTABLISHING PRICES FOR A PLURALITY OF PRODUCTS

BACKGROUND OF THE INVENTION

5

1. **Field of the Invention:**

This invention relates generally to a method and apparatus for establishing prices between a merchant and a customer and, more particularly, to a method and apparatus for adjusting prices for goods and services offered by the merchant to the customer.

10

2. **Description of the Prior Art:**

For a merchant that provides products (e.g., goods and/or services) to a wide range or number of customers, the merchant may find it difficult to price its products or services such that each individual customer's price sensitivity is taken into account while maximizing the merchant's revenue. Price discounting by a merchant often results in a reduced profit margin per sale for the merchant, and generally must be compensated by an increase in sales volume in order to raise overall profits for the merchant. Unfortunately, merchants may find it difficult to predict which price for a product will optimize profits for the merchant on sales of the product. Price discounts are also inefficient for the merchant since the discounts are also available to customers willing to pay more for the product than the discounted price. Moreover, a competitive market environment poses additional problems to a merchant reducing a price for a product in that it may encourage competitors to also lower their price for the product, thereby reducing profits for all merchants selling the product.

25

In general, a merchant may like to be able to price differentiate among customers such that the merchant increases profits by selling each item to a specific customer at or near the maximum price that the specific customer is willing to pay. Such a strategy is difficult for the merchant to implement, however, as it may require the merchant to price products differently for different customers, usually without definite information

regarding the customers' price sensitivity. Thus, the merchant may price a product too low for some customers, thereby unnecessarily reducing profit margins on those sales, while also pricing a product too high for other customers, thereby losing some sales altogether. In addition, such a strategy does not necessarily achieve the goal of lowering prices for products in a way that attracts new customers to the merchant.

A restaurant is one example of a type of merchant that does not traditionally discount prices. Restaurants are particularly vulnerable to brand dilution, since a customer's perceived value of a restaurant or of the quality of food and clientele available at the restaurants is often based on the price range for food items available at the restaurants, thereby making restaurants hesitant to discount prices. However, on a nightly basis, restaurants have perishable food that the restaurant needs to sell and seating which the restaurant hopes to fill.

Some services, such as those available at www.monkeyrules.com, provide auction services for restaurant services or otherwise allow a customer to bid on dining certificates for certain amounts. For example, a customer may bid twenty dollars for a voucher valued at thirty dollars redeemable at a specific restaurant. Generally, the restaurant pays for any difference between the voucher value and the accepted bid price paid by the winning customer. The restaurant generally hopes that the customer will make up for any losses suffered by the restaurant by bringing additional people to the restaurant, ordering a sufficient amount of food, etc. While the customer obtains a voucher for use at the restaurant, the customer does not receive a commitment from a restaurant regarding prices of any of the food items available at the restaurant.

Other services, such as those provided by iDine Prime (www.idineprime.com), allow a customer to receive a retroactively applied discount for a meal at a restaurant. Thus, the customer must pay full price for the meal up front and receive a discount for the meal at a later time, often on their credit card bill. Typically, the restaurant pays a commission to a discount program provider operating the service. In many cases, restaurants only join such a service when they are new and need to attract a customer base. The restaurants usually cease to participate after becoming established as the service

erodes the restaurant's profit margins. As with the voucher system discussed above, a customer using the service does not receive a commitment from a restaurant regarding prices of any of the food items available at the restaurant.

Despite the state-of-the-art in pricing systems, there remains a need for a method and apparatus for allowing or enabling a merchant, such as a restaurant, to offer different prices to different customers for the same products and to adjust prices for products on a customer-by-customer basis. Preferably, such a method and apparatus would not subject the merchant to brand dilution, or at least reduce the occurrence and affect of brand dilution, and would enable the merchant to maximize profits on the sales of its products and to attract new customers having various levels of price sensitivity.

SUMMARY OF THE INVENTION

Accordingly, it is an object of the present invention to provide a method and apparatus for enabling or allowing a merchant to sell one or more products to different customers at different prices and to adjust the prices of one or more products sold or offered for sale on a customer-by-customer basis. More specifically, the method and apparatus enables or allows a customer to commit or agree to perform a qualifying action in return for receiving a price adjustment for one or more products sold by or available from a merchant. The qualifying action may be part of a subsidy offer provided by the merchant to the customer. In exchange for accepting the subsidy offer or completing the qualifying action, the customer receives the price adjustment. The qualifying action may include, but is not limited to, accepting a magazine subscription, dining at a specific restaurant, enrolling in a credit card program, purchasing a minimum number of products or spending a minimum amount at a designated merchant, switching long distance telephone service providers, etc.

The method of the present invention may be implemented or operated by a merchant or by a controller or other central source for or on behalf of one or more merchants. The method of the present invention, as implemented by a merchant or controller, includes a step during which an indication of a plurality of items (e.g., cars,

food items, theater tickets, etc.) available from a merchant, each of the items having an initial price, is provided directly or indirectly to a customer, a step during which an indication of an available price adjustment is provided directly or indirectly to the customer, a step during which an indication of a subsidy offer associated with the price adjustment is provided directly or indirectly to the customer, and a step during which the initial price for at least one of the items in the plurality of items is adjusted to determine a second price for the item(s).

Additional objects, advantages, and novel features of the invention shall be set forth in part in the description that follows, and in part will become apparent to those skilled in the art upon examination of the following or may be learned by the practice of the invention. The objects and the advantages may be realized and attained by means of the instrumentalities and in combinations particularly pointed out in the appended claims.

To achieve the foregoing and other objects and in accordance with the purposes of the present invention, as embodied and broadly described herein, a method for adjusting a price of at least one of a plurality of products includes providing an indication of a plurality of products, each of the plurality of products having an initial price, providing an indication of an available price adjustment, providing an indication of a subsidy offer associated with the price adjustment, the subsidy offer including at least one qualifying action, and determining a second price for at least one of said plurality of products.

In another embodiment of a method of the present invention, a method for adjusting a total price for a plurality of products includes providing an indication of a plurality of products, providing an indication of an initial total price of the plurality of products and a price adjustment, providing an indication of a subsidy offer associated with the price adjustment, the subsidy offer including at least one qualifying action, and adjusting the initial total price of the plurality of products by the price adjustment.

In a further embodiment of a method of the present invention, a method for adjusting prices of one or more items available at a restaurant includes receiving a request for a list of items associated with a restaurant, providing an indication of the list, wherein

the list includes a plurality of items available from the restaurant, each of the plurality of items having an associated initial price and an associated price adjustment available upon completion of a qualifying action, receiving an indication of a commitment to complete the qualifying action, and

- 5 adjusting the associated initial price of at least one of the plurality of items by its respective price adjustment.

To achieve the foregoing and other objects and in accordance with the purposes of the present invention, as embodied and broadly described herein, a system for adjusting the price of at least one product includes memory, a communication port, and
10 a processor connected to the memory and the communication port, the processor being operative to provide an indication of a plurality of products, each of the plurality of products having an initial price, provide an indication of a price adjustment, provide an indication of a subsidy offer associated with the price adjustment, the subsidy offer including at least one qualifying action; and determine a second price for at least one of
15 the plurality of products.

BRIEF DESCRIPTION OF THE DRAWINGS

- The accompanying drawings, which are incorporated in and form a part of the
20 specification, illustrate the preferred embodiments of the present invention, and together with the descriptions serve to explain the principles of the invention.

In the Drawings:

- Figure 1 is a flowchart of a first embodiment of a method in accordance with the
25 present invention;

Figure 2 is a block diagram of system components for an embodiment of an apparatus usable with the method of Figure 1;

Figure 3 is a flowchart of a method complementary to the method of Figure 1 from the point of view of a customer device of Figure 2;

Figure 4 is a flowchart of a second embodiment of the method of the present invention;

Figure 5 is a flowchart of a third embodiment of the method of the present invention;

5 Figure 6 is a flowchart of a fourth embodiment of the method of the present invention;

Figure 7 is a flowchart of a method complementary to the method of Figure 1 from the point of view of a merchant device of Figure 2;

Figure 8 is a block diagram illustrating a representative controller of Figure 2;

10 Figure 9 is a tabular representation of a possible data structure for the merchant database of Figure 8;

Figure 10 is a tabular representation of a possible data structure for the customer database of Figure 8;

15 Figure 11 is a tabular representation of a possible data structure for the subsidy database of Figure 8; and

Figure 12 is a block diagram illustrating a representative customer device of Figure 2.

DETAILED DESCRIPTION OF THE EMBODIMENTS

20 A first embodiment 100 of a method in accordance with the principles of the present invention is illustrated in Figure 1. The method 100 allows a merchant to sell products to different customers at different prices and to adjust the prices of one or more products sold or offered for sale on a customer-by-customer basis. More specifically, the method 100 allows a customer to commit or agree to perform a qualifying action in return
25 for receiving a price adjustment for one or more products sold by or available from a merchant. The qualifying action may be part of a subsidy offer provided by the merchant to the customer. In exchange for accepting the subsidy offer or completing the qualifying action, the customer may receive the price adjustment. The qualifying action may include, but is not limited to, accepting a magazine subscription, dining at a specific

restaurant, enrolling in a credit card program, purchasing a minimum number of products at a designated merchant, switching long distance telephone service providers, etc.

A price adjustment may be a fixed discount amount, a percentage discount, etc. Thus, a price adjustment may be of a certain type or designation. In addition, price adjustments may often have a value associated with them, which value may comprise both real and perceived components.

For purposes of discussion and explanation, but not limitation, of the present invention, the term “products” and phrase “products offered by a merchant” will be taken to include tangible goods and intangible services that may be offered by the merchant.

The terms “product” and “item” will also be used interchangeably herein.

For example, a merchant may allow a customer to purchase a product at an initial price or, if the customer satisfies or agrees to satisfy a qualifying condition, the customer may be entitled to receive a price adjustment applicable toward the initial price of the product, which may lower the price for the product for the customer. In some embodiments of the method 100, the customer may know the available price adjustment applicable toward the initial price prior to committing to satisfying or otherwise completing the qualifying action.

As another example of an implementation or use of the method 100, a customer interested in purchasing several different products from a single merchant may be offered the opportunity via a subsidy offer to complete a qualifying action, thereby entitling the customer to receive a price adjustment for all of the products or individual price adjustments applied to individual products. If the customer accepts the subsidy offer, the customer may pay a lower price for the products.

The method 100 may be implemented or operated by a merchant, or by a controller or other central source for or on behalf of one or more merchants. The method 100 illustrated in Figure 1 includes a step 102 during which an indication of a plurality of items (e.g., cars, produce, food items, prescription drugs, pieces of electronic equipment, theater tickets, etc.) available from a merchant, each of the items having an initial price, may be provided directly or indirectly to a customer, a step 104 during which an

indication of an available price adjustment may be provided directly or indirectly to the customer, a step 106 during which an indication of a subsidy offer associated with the price adjustment may be provided directly or indirectly to the customer, and a step 108 during which the initial price for at least one of the items in the plurality of items may be adjusted to determine a second price for the item(s). Two or more of the indications provided during the steps 102, 104 and/or 106 may be combined into a single indication if desired. Similarly, any two or more of the steps 102, 104, 106 and/or 108 may be combined into a single step or performed in alternative orders if desired. Each of the steps 102, 104, 106 and 108 will be discussed in more detail below.

As a simple example of one implementation of the method 100, a customer may wish to ascertain or establish prices for food items available at a restaurant. The customer may send a request for a menu or other list of food items to a controller or other device operated by or for the restaurant. Alternatively, the customer may provide an indication of a selection of food items or other products that the customer is interested in. In response to the customer's request or selection, the controller or other device may provide an indication of such a plurality of items during the step 102. Each of the food items described or listed in the indication sent during the step 102 may have an associated initial price, which may or may not be communicated to the customer. Alternatively, a total price may be associated with all of the food items described or listed in the indication sent during the step 102.

The controller or other device may also provide an indication to the customer of a price adjustment during the step 104, the price adjustment being applicable to one or more of the plurality of items indicated during the step 102. For example, the price adjustment may be a one-dollar discount applicable to one or more of the food items indicated during the step 102. Alternatively, the price discount may be a ten percent (10%) discount off the initial price of one or more of the food items indicated during the step 102 or the total price for two or more of the food items indicated during the step 102.

The controller or other device may provide an indication to the customer of one or more subsidy offers during the step 106 that is associated with the price adjustment

and/or one or more of the plurality of items indicated in the step 102. If the customer accepts the subsidy offer, the customer is then entitled to the price adjustment indicated during the step 104. A subsidy offer may require that the customer agree to a switch in long distance telephone service providers, that the customer agree to a magazine subscription, that the customer agree to submit an application for a new credit card, or that the customer agree to complete or satisfy some other qualifying action.

The customer may indicate an acceptance or rejection of the subsidy offer indicated during the step 106 by sending a message, signal or other indication back to the controller or other device. Alternatively, the customer's acceptance of the subsidy offer indicated during the step 106 may be implied or assumed unless the customer indicates otherwise.

During the step 108, a new or second price is determined for one or more of the food items indicated during the step 102. The new or second price may be communicated to the customer immediately. Alternatively, in embodiments where the customer is not at the restaurant when the method 100 is being performed, the customer may have to wait until the customer visits the restaurant to learn what the new or second price is.

One of the significant advantages provided by the method and apparatus of the present invention to a merchant is that the merchant can now allow different customers to obtain different prices for the same products, thereby allowing the customers to make purchasing decisions based on their own price sensitivity. In addition, the method and apparatus of the present invention allows a merchant to provide differential pricing among customers while minimizing brand dilution. That is, because the prices for one or more items available at a merchant are unchanged, unless a customer commits to satisfying, or actually satisfies, a qualifying action, or accepts a subsidy offer, the merchant does not provide reduced prices to all customers. Further, the merchant may receive a benefit from the completion of a qualifying action by the customer.

In some embodiments, a third party entity may subsidize any losses incurred by the merchant when the merchant adjusts a price downward. Third party participants (e.g., long distance telephone service providers, internet service providers) often face high costs

when acquiring a new customer. Traditional acquisition methods, such as direct mail offers, typically have a low response rate to the offer. Thus, it is often difficult for third party participants to target the right offer to the right customer at the right time. By subsidizing some or all of a merchant's price adjustments offered to a customer, the subsidizing third party may gain access to the merchant's customers and may obtain a marketing opportunity to acquire new customers.

One of the significant advantages provided by the method and apparatus of the present invention to a customer is that the customer may receive opportunities to receive price adjustments for products when making purchasing decisions regarding products offered by a merchant. For example, a customer may decide to pay the full price for an item sold by a merchant. Alternatively, the customer may elect to accept a subsidy offer, thereby enabling the customer to obtain a price that is lower than full price for the item if the customer completes or otherwise satisfies a qualifying action associated with the subsidy offer.

Each of these and other advantages of the method and apparatus of the present invention will be disclosed in more detail below.

Now referring to Figure 2, an apparatus or system 200 usable with the method 100 is illustrated. The apparatus 200 includes a controller 202 that may communicate with one or more customer or user devices 204, 206, one or more merchant devices 208, 210, and one or more subsidizer devices 212, 214 directly or indirectly via a computer, data, or other communications network 216. The controller 202 may perform some or all of the steps 102, 104, 106 and 108 of the method 100 and receives information, indications, etc. from users who may be using the customer devices 204, 206, from merchants via the merchant devices 208, 210, and/or from subsidizers via the subsidizer devices 212, 214.

For example, during the step 102, the controller 202 may send or otherwise provide to a customer an indication of a plurality of items available at a merchant. If the merchant is a restaurant, the plurality of items may represent a menu or partial menu of food items available at the restaurant. As a further example, during the step 104, the controller 202 may provide an indication to the customer of a price adjustment available for one or more

of the food items available at the restaurant if the customer agrees to the subsidy offer described in the indication provided by the controller 202 to the customer during the step 106.

The controller 202 may complete some or all of the steps of the method 100 on behalf of a single merchant, a collection of merchants, a service provider supporting one or more merchants, etc. Moreover, the controller 202 may be located at a single merchant or be operated by, for, or on behalf of one or more merchants. In some embodiments, the controller 202 may also function as a customer device, a merchant device, and or a subsidizer device. The configuration, operation and use of the controller 202 will be described in more detail below.

The customer devices 204, 206 preferably allow users to interact and communicate with the controller 202, merchant devices 208, 210, and the remainder of the apparatus 200. The customer devices 204, 206 may also enable a user to communicate with a merchant or subsidizer. For example, a customer may send or otherwise transmit a request via a customer device to a merchant device or the controller 202 that the controller 202 or the merchant device provide to the customer a list of one or more items available at the merchant. More specifically, if the merchant supported by the controller 202 is a restaurant, the customer may send a request to the controller 202 to send a menu or list of food items available at the restaurant.

If desired, the customer devices 204, 206 may also be directly or indirectly connected to, or otherwise in communication with, other devices. In some embodiments, a customer device may also function as a merchant or subsidizer device or as the controller 202. A customer device may include or comprise a telephone, cellular telephone, personal digital assistant (PDA), computer, workstation, Web-enabled device, vending machine, kiosk, etc. The configuration, operation and use of customer devices will be described in more detail below.

The merchant devices 208, 210 preferably allow merchants to interact with the controller 202, subsidizer devices, customer devices and the remainder of the apparatus 200. The merchant devices 208, 210 may also enable a merchant to communicate with

a customer and/or a subsidizer. A merchant device may perform some or all of the steps 102, 104, 106 and 108 of the method 100. For example, a merchant device operated by or for a restaurant may send or otherwise provide an indication of food items available at the restaurant during the step 102.

5 If desired, the merchant devices 208, 210 may also be connected to or otherwise in communication with other devices. In some embodiments, a merchant device may also function as a customer or subsidizer device or as the controller 202. Merchant devices may be or include point-of-sale terminals or displays, cash registers, computers, servers, kiosks, vending machines, etc. The configuration, operation and use of merchant devices
10 will be described in more detail below.

The subsidizer devices 212, 214 preferably allow subsidizers to interact with the controller 202 and the remainder of the apparatus 200. The subsidizer devices 212, 214 may also enable a subsidizer to communicate with one or more merchants and/or subsidizers. If desired, the subsidizer devices 212, 214 may also be connected to or
15 otherwise in communication with other devices. In some embodiments, a subsidizer device may also function as a customer or subsidizer device or as the controller 202. The configuration, operation and use of subsidizer devices will be described in more detail below.

The communications network 216 might be the Internet, the World Wide Web,
20 or some other public or private computer, wireless, cable, telephone, vending, data or communications network or intranet, as will be described in further detail below. The communications network 216 is only meant to be generally representative of cable, computer, telephone or other communication networks for purposes of elaboration and explanation of the present invention and other devices, networks, etc. may be connected
25 to the communications network 216 without departing from the scope of the present invention. The communications network 216 is also intended to be representative of, and include all or a part of, the Internet, the World Wide Web, and other privately or publicly operated networks. The communications network 216 can also include other public and/or private wide area networks, telephone networks, wireless networks, local area

networks, data communication networks or connections, intranets, routers, satellite links, microwave links, cellular or radio links or networks, wireless networks, fiber optic transmission lines, ISDN lines, T1 lines, telephone lines, DSL, etc. In some embodiments, a customer device, merchant device, and/or subsidizer device may be directly connected to the controller 202 or each other, thereby reducing or even eliminating the use or need for the communications network 216. The methods of the present invention are not dependent on the type of connections or communications between the controller 202, customer devices, merchant devices and subsidizer devices of the system 200 or the configuration, implementation, or use of the communications network 216.

Now referring again to Figure 1, the method 100 and the steps 102, 104, 106 and 108 will be discussed in more detail in relation to the system 200 illustrated in Figure 2.

For purposes of explanation, but not limitation of the present invention, the method 100 and the steps 102, 104, 106 and 108 will be described as being implemented primarily by the controller 202. However, some or all of the steps 102, 104, 106 and 108 can be initiated, completed and/or implemented by one or more other devices, such as a merchant device, subsidizer device, customer device, etc.

As previously discussed above, the method 100 may include a step 102 during which the controller 202 provides an indication of a plurality of items, typically to a customer, customer device or some other entity or device. The indication may include or comprise an e-mail message, a voice-mail message, Web page download, facsimile transmission, etc. or some other form of communication between the controller 202 and a customer device. The indication provided by the controller 202 during the step 102 may be sent to a customer, customer device or other entity or device via the communications network 216 or via some other communication channel. The controller 202 may store information regarding customers and customer devices in a customer database, which may be populated, accessed, updated, maintained and/or hosted by the controller 202 or some other device.

The indication sent by the controller 202 during the step 102 may be in response

Figure 1 The effect of the number of nodes on the performance of the proposed algorithm.

Figure 1 The effect of the concentration of the solution on the adsorption capacity of the adsorbent.

In an implementation wherein the controller 202 is implementing the method 100 via a Web site for or on behalf of a restaurant, the customer may be able to receive a list or menu of food items available at the restaurant via the Web site that the customer can display on a customer device. In some embodiments, only some of the food products available at the restaurant will be displayed or otherwise indicated to the customer during the step 102. In other embodiments, all of the food products available at the restaurant will be displayed or otherwise indicated to the customer during the step 102. In still other embodiments, some or all of the food products (*e.g.*, a complex or expensive dessert, an entrée that is time-consuming to prepare) indicated during the step 102 may not be

orderable by the customer at the restaurant and may only be orderable by the customer via the Web site.

The indication provided by the controller 202 during the step 102 may or may not include price or other information for one or more of the products indicated. For example, in the previous restaurant implementation, the indication may include price, calorie-count, spiciness, preparation time, ingredient or other information for some or all of the plurality of indicated products. In some embodiments, a customer may be able to receive a price adjustment for one or more products even though the price(s) to be charged for the product(s) is not determined until a later time. For example, a price for a "fish of the day" menu item for a restaurant may change depending on the type of fish, the amount of fish in inventory, seasonal variations, etc. A customer may be able to obtain information regarding the "fish of the day" menu item from information the controller 202 provides during the step 102, even if the restaurant does not establish the price for the menu item until the customer dines at the restaurant. The controller 202 may store information regarding the products indicated during the step 102 in a product database, which may be populated, accessed, updated, maintained and/or hosted by the controller 202 or some other device. The controller 202 may also query a merchant, merchant device, or other entity or device for such information.

After the controller provides an indication of a plurality of products during the step 102, during the step 104, the controller 202 provides an indication of at least one price adjustment during the step 104 that may be applicable to one or more of the plurality of products indicated during the step 102. The indication provided during the step 102 may be combined with the indication provided during the step 104. The steps 102 and 104 may be combined into a single step, performed simultaneously, performed in the opposite order, performed with a small or large time delay in between them, etc.

In a similar manner to the indication sent by the controller 202 during the step 102, the indication sent during the step 104 may include or comprise an e-mail message, a voice-mail message, Web page download, facsimile transmission, etc. or some other form of communication between the controller 202 and a customer device. The

indication provided by the controller 202 during the step 104 may be sent to a customer, customer device or other entity or device via the communications network 216 or via some other communication channel. In some embodiments, the indication sent during the step 102 may be provided in a different format or via a different communication channel than the indication sent during the step 104.

The price adjustment indicated by the controller 202 during the step 104 may be a fixed price discount available for one or more of the products indicated during the step 102, a percentage discount available for one or more of the products indicated during the step 102, etc. The price adjustment may also be variable or otherwise a function of one or more factors, such as, for example, the day of the week, the number of products indicated, the wholesale or retail price of one or more of the products indicated, a merchant's inventory level of one or more of the products indicated, an expiration date for one or more of the products indicated, the occurrence of a specific external event (e.g., rain, a holiday, a change in the Dow Jones Industrial Average, a sale, product shortage), the demographic profile of a customer to whom the indication is sent, the credit balance, history or rating of a customer to whom the indication is sent, the shopping history of a customer to whom the indication is sent (e.g., is the customer a new or frequent customer of a particular merchant), etc.

The price adjustment indicated during the step 104 may be applicable to one, some or all of the plurality of products indicated during the step 102. Alternatively, the price adjustment may be allocated for a group of the products indicated during the step 102. For example, a price adjustment may be applicable to the total price of group of food products available to a customer at a restaurant, even if the individual prices of the food products are not communicated to the customer.

In some embodiments, the indication provided during the step 104 may include more than one price adjustment. Different price adjustments may be associated with different products indicated during the step 102 or with different subsidy offers or qualifying actions indicated during the step 106. For example, in the restaurant implementation discussed above, the indication sent by the controller 202 during the step

104 may provide a percentage or fixed price discount for one or more of the food items indicated during the step 102. The price adjustment indication sent during the step 104 can be sent to a customer even if the initial prices for the food items indicated during the step 102 is not communicated to the customer. Thus, for example, the customer may be

5 in a position of learning about a ten percent or ten-dollar discount available from a restaurant for one or more food items without knowing the restaurant's current price of the food items. Such an implementation may be particularly valuable to a restaurant when the prices of food items changes daily, weekly, seasonally, etc., when the food items offered by the restaurant change, etc.

10 In some embodiments, a price adjustment might be or represent a range of price changes. For example, a price adjustment may provide between five percent (5%) and ten percent (10%) off a price of a product. The price adjustment available to a customer may be determined by a customer's completion percentage of a qualifying action, the success of a customer's performance regarding a subsidy offer, etc. For example, a price

15 adjustment might entitle a customer to receive a five percent (5%) discount off the price of a product identified during the step 102 if the customer completes fifty percent (50%) of a qualifying action (e.g., delivering five hundred advertising leaflets, answering twenty survey questions) associated with the price adjustment, a six percent (6%) discount off the price of a product identified during the step 102 if the customer completes sixty

20 percent (60%) of a qualifying action associated with the price adjustment, etc.

After the controller provides an indication of a plurality of products during the step 102 and indication of at least one price adjustment during the step 104, the controller 202 provides an indication of at least one subsidy offer during the step 106 that may be applicable to or associated with one or more of the plurality of products indicated during

25 the step 102 and/or the price adjustment indicated during the step 104. The indication provided during the step 102 and/or the indication provided during the step 104 may be combined with the indication provided during the step 106. Two or more of the steps 102, 104 and/or 106 may be combined into a single step, performed simultaneously, performed in the opposite or different order, performed with a small or large time delay

in between them, etc.

In a similar manner to the indication sent during the steps 102 and 104, the indication sent during the step 106 may include or comprise an e-mail message, a voice-mail message, Web page download, facsimile transmission, etc. or some other form of communication between the controller 202 and a customer device. The indication provided by the controller 202 during the step 106 may be sent to a customer, customer device or other entity or device via the communications network 216 or via some other communication channel. In some embodiments, the indication sent during the step 106 may be provided in a different format or via a different communication channel than the indication sent during the step 102 and/or the step 104.

The subsidy offer indicated during the step 106 may allow or enable a customer to obtain or be entitled to receive the price discount indicated during the step 104 for one or more of the products indicated during the step 102. In some embodiments, the subsidy offer may include or be associated with a qualifying action. If the customer receiving the indication of the subsidy offer satisfies the qualifying action, or otherwise commits to satisfying the qualifying action, the customer will be entitled to receive the benefit of the price adjustment indicated during the step 104. Qualifying actions may be just about any sort of activity. For example, satisfying a qualifying action may require a customer to test drive a vehicle at a automobile dealer by a certain date, to spend a certain dollar amount of food at a supermarket, to shop at a particular store, use or visit a particular vending machine, use a specific credit card during the customer's next purchase, switch long distance telephone service providers, accept a magazine subscription, use a particular mortgage or investment broker, meet with an insurance salesperson, etc. Information regarding subsidy offers, associated subsidizers, etc. may be stored in a subsidy database, which may be populated, accessed, updated, maintained and/or hosted by the controller 202 or some other device.

In some embodiments, the level or degree of complexity of a qualifying action for a subsidy offer may be small, or even non-existent. For example, a customer may qualify to receive a price adjustment simply by having or meeting a desired or designated

demographic profile. Thus, the customer does not have to perform any additional actions to satisfy the qualifying action or the subsidy offer associated with the price adjustment.

In another example, the controller 202 may offer a price adjustment to a customer free of charge when the customer visits a Web site operated by the controller 202. Thus, the customer's visit to the Web site is assumed or considered to be a completion of qualifying action or the subsidy offer associated with the price adjustment.

The customer receiving the indication of the subsidy agreement may need to provide or send an indication of an acceptance of the subsidy offer, a compliance with the subsidy offer, a willingness or commitment to complete a qualifying action associated with the subsidy offer, etc. In some embodiments, such an indication may be assumed or implied, thereby resulting in an assumption that the customer has accepted the subsidy offer. Thus, the customer may obtain the benefit of the price adjustment indicated during the step 104 without the customer providing any response or indication of any kind to the controller 202 or without the controller 202 receiving any sort of verification or indication that a subsidy offer has been agreed to by the customer or that a qualifying action has been completed by the customer. For example, a subsidy agreement offered by the controller 202 to a customer may require that the customer test drive a particular car in order to receive a price adjustment on the prices of products sold by an automobile parts store. The controller 202 may assume that the customer will accept the subsidy offer and complete the qualifying action and, as a result, the controller 202 informs the store to provide the price adjustment to the customer, even though the customer never indicated to the controller 202 that the customer would or had test driven the car.

In some embodiments of the method 100, the indication provided by the controller 202 during the step 106 may include information regarding more than one subsidy offers and/or qualifying actions. Different subsidy offers may be applicable to, or associated with, different products indicated during the step 102 or different price adjustments indicated during the step 104. For example, in a restaurant oriented implementation of the method 100, the controller 202 may provide an indication to a customer during the step 102 of four dinner entrées available at a restaurant. During the step 104, the controller

202 may provide an indication of three different price adjustments, the first of which provides a ten percent (10%) discount off the price of any one of the four dinner entrées, the second of which provides a five-dollar discount off the price of any one of the four dinner entrées, and the third of which provides a ten-dollar discount off the price of the first dinner entrée. During the step 106, the controller 202 may provide an indication of three different subsidy offers, the first of which is associated with the first price adjustment and, as a result, any of the four dinner entrées, the second of which is associated with the second price adjustment and, as a result, any of the four dinner entrées, and the third of which is associated with the third price adjustment and, as a result, the first dinner entrée. In an alternate embodiment the customer may specify what types of subsidy offers the customer is willing to consider and the controller may only provide the customer with the subsidy offers that meet the customer's specifications. For example, the customer may indicate to the controller that he wishes to pay a maximum of \$x for an entrée or meal and request that the controller only present subsidy offers to the customers that would result, once accepted and applied to the customer, in the customer paying no more than \$x for the entrée or meal.

The first subsidy offer may require that the customer use a designated taxi service to get to the restaurant in order to be entitled to the first price adjustment. The second subsidy offer may require that the customer agree to try a new type of shampoo in order to be entitled to the second price adjustment. The third subsidy offer may require that the customer agree to spend ten dollars on clothes at a department store in order to be entitled to the third price adjustment. Thus, accepting or otherwise complying with, or committing to complete, the first subsidy offer will entitle the customer to obtain a ten percent (10%) discount off any one of the four dinner entrées. Accepting or otherwise complying with, or committing to complete, the second subsidy offer will entitle the customer to obtain a five-dollar discount off any one of the four dinner entrées. Similarly, accepting or otherwise complying with, or committing to complete, the third subsidy offer will entitle the customer to obtain a ten-dollar discount off the first dinner entrée.

During the step 108, the controller 202 determines a new or second price for one

or more of the products indicated during the step 102. In general, the controller 202 adjusts one or more prices for one or more of the products indicated during the step 102 by one or more price adjustments indicated during the step 104. The relationship between the application of a price adjustment to a price of a product is based on the
5 subsidy agreement indicated during the step 106.

For example, if the customer agrees to the third subsidy offer described in the example immediately above, the price of the first dinner entrée would be reduced by ten dollars. A notification or other indication of a change in the price of the first dinner entrée may or may not be sent or provided to the customer, depending on the
10 implementation of the method 100. Thus, the customer may know that he or she is entitled to receive the ten-dollar discount on the price of the first entrée, but the customer may not know what the initial price was for the first entrée or what the newly determined price is for the entrée. In some embodiments, the customer may have to show up at the restaurant before he or she is privy to the price information. In other embodiments, the customer
15 may never learn what the original and/or adjusted prices are for the first entrée, particularly in situations where the customer is not actually paying for the first entrée.

In some embodiments, the controller 202 may not initiate or complete the step 108 until after receiving a notice or other indication of a completion of a qualifying action associated with a subsidy offer and a price adjustment, a willingness or other commitment
20 to complete the qualifying action, or an acceptance or other agreement to a subsidy agreement. The notice or indication may come from a merchant, merchant device, customer, customer device, or some other party or device. The controller 202 may store information regarding merchants in a merchant database, which may be populated, accessed, updated, maintained and/or hosted by the controller 202 or some other device.

25 In some embodiments, the step 108 may encompass providing a customer with an indication of a price adjustment that the customer may allocate at the customer's discretion over one or more products. For example, the step 108 may be completed by providing an indication to a customer that the customer is entitled to receive a ten-dollar total discount applicable to the customer's purchase of one or more designated products.

The customer may then decide how to allocate the ten dollars in savings and which product(s) to apply a discount to. The customer, or a customer device, may then indicate to the controller 202 or a merchant device what the customer's allocation is and what products are involved. The controller 202 or the merchant device can then determine what the second price is for at least one of the plurality of products indicated during the step 102.

Now referring to Figure 3, a method 300 that may be implemented by a customer or customer device is illustrated. The method 300 is generally complementary to the steps of the method 100 of Figure 1. The method 300 includes a step 302 during which a customer or customer device receives an indication of a plurality of products. The step 302 is complementary to the step 102 during which the controller 202 or a merchant device provides the indication of a plurality of products. The method 300 also includes a step 304 during which a customer or customer device receives an indication of a price adjustment associated with one or more of the plurality of products. The step 304 is complementary to the step 104 during which the controller 202 or a merchant device provides the indication of the price adjustment. Similarly, the method 300 includes a step 306 during which a customer or customer device receives an indication of a subsidy offer or qualifying action associated with one or more of the plurality of products and/or one or more of the price adjustments. The step 306 is complementary to the step 106 during which the controller 202 or a merchant device provides the indication of the subsidy offer or qualifying action. The method 300 also includes an optional step 308 during which a customer or customer device receives an indication of a second or otherwise adjusted price associated with one or more of the plurality of products. The indication received during the step 308 may come from a merchant, merchant device, the controller 202, or some other device or entity.

As with the steps 102, 104 and 106 of the method 100, two or more of the steps 302, 304 and 306 of the method 300 may be combined into a single step, implemented or initiated in different orders, etc. The steps of the method 100 and the method 300 may be completed in a complementary fashion and in many different sequences, such as, for

example, 102, 302, 104, 304, 106, 306, 108 and 308.

In some embodiments, the method 300 may also include a step during which a customer or customer device provides a record or other indication of the adjusted price received during the step 308 to another entity or device. For example, in a restaurant oriented implementation or use of the method 100 and/or the method 300, a customer may receive an indication during the step 308 sent from the controller 202 regarding an adjusted or second price on a food item that the customer is entitled to receive if the customer orders the food item at a designated restaurant. The customer may need to provide a record or other indication or verification of such adjusted price to the restaurant or a merchant device when the customer orders the food item at the restaurant, pays a bill for the food item at the restaurant, etc. In other embodiments such an indication or verification may be sent directly to the merchant device from the controller.

In some embodiments, the method 300 may also include a step during which a customer or customer device provides an indication of the adjusted price received during the step 308 to another entity or device. For example, in a restaurant oriented implementation or use of the method 100 and/or the method 300, a customer may receive an indication during the step 308 sent from the controller 202 regarding an adjusted or second price on a food item that the customer is entitled to receive if the customer orders the food item at a designated restaurant. The customer may need to provide a record or other indication or verification of such adjusted price to the restaurant or a merchant device when the customer orders the food item at the restaurant, pays a bill for the food item at the restaurant, etc. A record might be in tangible format (*e.g.*, a piece of paper) or in electronic format. A record may include information regarding a customer, price adjustment, products or services associated with a customer or price adjustment, time and date of a customer completed qualifying action, etc.

While the method 300 describes one use of a record, many embodiments of the methods described herein may use records for different purposes. For example, a customer may need to bring a record to a restaurant in order to verify that the customer has earned/accepted a specific price or price adjustment online with the controller 202,

and/or that the customer had completed whatever qualifying action that the customer had agreed to online. The customer may also receive a record from the restaurant that the customer may then transmit to the controller 202, where the record from the restaurant indicates that the customer did eat there and is entitled to a rebate equaling the difference between the price the customer paid at the restaurant and the price the customer had agreed to online with the controller 202. This example highlights the use of a record in a relationship or communication between a customer and a restaurant (*e.g.*, a merchant).

In a second example of a use of a record, a customer may provide a record to a subsidizer in order to prove/verify that the customer had agreed to perform a qualifying action in order to gain access to perform the qualifying action or to enable the subsidizer to forward the record back to the controller 202 once the customer has completed the qualifying action, thereby providing proof of the customer having completed the qualifying action. For example, if the subsidizer is an automobile dealer and the qualifying action comprises test-driving an automobile, the customer may need to bring in a receipt received from the controller 202 so that the customer can present it to the automobile dealer when the customer visits the automobile dealer to test drive a car. The dealer can either use the record for its own purposes, *e.g.*, to track which customers come in that are referred from the controller, or the dealer may forward the record or a code from or embodied by the record back to the controller once the customer has test driven the car. In this example, the record may be the receipt itself or a code printed on the receipt. This example highlights the use of a record in a relationship or communication between a customer and a subsidizer.

The record could also be a record that the customer receives from the subsidizer once the customer has completed a qualifying action. The customer may then provide the record to the controller 202 to prove that the customer has completed the qualifying action and is now entitled to an adjusted price. Alternatively, the customer may provide the record to the automobile dealer, either with or without a record received from the controller 202, to show that the customer has completed the qualifying action and is entitled to an adjusted price.

If the place/entity where the customer completes a qualifying action is a place other than a subsidizer's establishment, then the customer may need to present a record of completion of a qualifying action to the subsidizer so that the subsidizer can authorize an adjusted price with the controller 202. For example, if a credit card issuer is a subsidizer and a qualifying action is to buy groceries with a particular credit card at a particular store, the credit card bill or charge authorization may serve as a record to the subsidizer that the qualifying action has been completed by the customer. In this example, the customer may not need to affirmatively transmit the record to the subsidizer, rather the subsidizer may receive the record through an automated process.

In an example that highlights the use of a record in a relationship or communication between a customer and the controller 202, the customer may receive a record from the controller 202 that the customer may then present to a restaurant to receive an adjusted price the customer established online with the controller 202 or to allow the restaurant to access a record to verify that the customer is entitled to an adjusted price established online. The customer may present a record to the controller 202 to prove that the customer has completed a qualifying action, or to prove that the customer has made a purchase at a restaurant and is entitled to a rebate.

In an example that highlights the use of a record in a relationship or communication between a subsidizer and a merchant (e.g., restaurant), the subsidizer may transmit a record to the restaurant to indicate that the customer has completed a qualifying action so that the restaurant may use this record, in conjunction with a record from a controller that an adjusted price was established online, to provide the customer with an adjusted price. The restaurant may also transmit a record to the subsidizer to indicate to the subsidizer that the customer has made a purchase at the restaurant. The subsidizer may then authorize the provision of the subsidy amount to the customer or to the controller 202 based on receipt of the record from the restaurant.

In an example that highlights the use of a record in a relationship or communication between a merchant and the controller 202, the controller 202 may transmit a record to the restaurant to indicate that a particular customer may be entitled

to an adjusted price. The controller 202 may also transmit a record to the restaurant to indicate that the customer has completed a qualifying action. The record indicating the completion of the qualifying action may either be part of the same record indicating that the customer is entitled to an adjusted price or may be a separate record.

5 The restaurant may transmit a record to the controller 202 indicating that a customer has made a purchase at the restaurant. This record may trigger the controller 202 to provide a rebate to the customer that is the difference between the price paid at the restaurant and the adjusted price agreed to online, provide a reimbursement to the restaurant that is the difference between the adjusted price paid and the regular retail
10 price, and/or request the subsidy amount from the subsidizer in order to reimburse the restaurant or rebate the customer.

 In an example that highlights the use of a record in a relationship or communication between a subsidizer and the controller 202, the subsidizer may provide the controller 202 with a record that a customer has completed a qualifying action. The
15 controller 202 may provide a record to the subsidizer that a customer has agreed to complete a qualifying action in exchange for a subsidy. The controller 202 may also provide the subsidizer with a record indicating that a customer has redeemed an adjusted price at a restaurant, to verify that the subsidy amount was used by the controller 202 to reimburse the restaurant or rebate the customer.

20 Now referring to Figure 4, a second embodiment 320 of a method in accordance with the present invention is illustrated. The method 320 includes the steps 102, 104, 106 and 108 previously described above. In addition, the method 320 includes the step 322 during which the controller 202 or other device implementing the method 320 receives an indication of an acceptance of the subsidy offer indicated by the controller 202 or other
25 device during the step 106. The indication may be in any form or format, such as an e-mail message, voice-mail message, facsimile transmission, electronic signal, etc. The step 322 may be completed or implemented in many ways, such as, for example, by receiving an indication of a completion of a qualifying action associated with the subsidy offer indicated during the step 106 or by receiving an indication of a commitment or other

willingness to complete or otherwise satisfy a qualifying action associated with the subsidy offer.

5 In some embodiments of the method 300 illustrated in Figure 3, a step may be included during which a customer, customer device or other party or device may provide the indication received by the controller 202 or other device during the step 322.

10 Now referring to Figure 5, a third embodiment 340 of a method in accordance with the present invention is illustrated. The method 340 includes the steps 102, 104, 106 and 108 previously described above. In addition, the method 340 includes the step 342 during which the controller 202 or other device implementing the method 340 receives an indication or other request for product information. The indication or request received during the step 342 may be in regard to a specific product (e.g., a specific kind of tire, paint, paper plate, etc), for one or more specific products, a group or type of products (e.g., medical equipment, clothing, juices), etc.

15 The controller 202 or other device implementing the method 340 may use the request or indication received during the step 342 to determine which products to include, describe, list, etc. in the indication provided by the controller 202 or other device during the step 102. For example, the indication received by the controller 202 during the step 342 may request a list of food products available from a restaurant at a specific date and time. The indication provided by the controller 202 during the step 102 may include a partial or complete list of food products from the menu of the restaurant that are or will be available on that specific date and time.

20 In some embodiments, the method 320 may include the step 342 from the method 340 and the method 340 may include step 322 from the method 320. In addition, in some embodiments of the method 300 illustrated in Figure 3, a step may be included during which a customer, customer device or other party or device provides the indication or other request received by the controller 202 or other device during the step 342.

25 Now referring to Figure 6, a third embodiment 360 of a method in accordance with the present invention is illustrated. The method 360 includes the steps 102, 104, 106 and 108 previously described above. In addition, the method 360 includes the step 362

during which the controller 202 or other device implementing the method 360 provides an indication of the second or adjusted price determined during the step 108 or the price adjustment indicated during the step 104. The indication may be in any form or format, such as an e-mail message, voice-mail message, facsimile transmission, electronic signal, etc. The step 362 may also be added to the methods 320 and 340 or to a combination of the methods 320 and 340.

The indication provided during the step 362 may be received by a customer, customer device, merchant device, subsidizer or other device or entity. For example, in some embodiments wherein the controller is performing or implementing the method 360, the indication provided by the controller 202 during the step 362 may be received by a restaurant but not the customer entitled to receive the price adjustment indicated during the step 104. The restaurant may indicate the price adjustment when the customer visits or dines at the restaurant, logs onto the restaurant's Web site, etc. If the indication is sent to both the restaurant and the customer, the restaurant may use the indication to verify the price adjustment or an adjusted or second price when the customer pays for food products at the restaurant or asserts that the customer is entitled to receive a price adjustment. In other embodiments, the indication provided by the controller 202 during the step 362 may be received by a customer who will be dining at the restaurant and/or by a subsidizer who is subsidizing all or part of the price adjustment received by the customer when the customer dines at the restaurant. The subsidizer may then remit or provide payment to the restaurant or the controller 202 to subsidize all or part of the price adjustment or second price indicated during the step 362.

Now referring to Figure 7, a method 380 that may be implemented by a merchant or merchant device is illustrated. The method 380 includes a step 382 during which an initial price for each of a plurality of products is established. The price for none, some or all of the products in the plurality of products may be the same or different.

The method 380 also includes a step 384 during which an indication of the plurality of products is provided directly or indirectly to a customer, customer device, the controller 202, etc., a step 386 during which an indication of an adjustment in price for

one of the plurality of products is received directly or indirectly from a customer, customer device, the controller 202, etc. The price adjustment in the indication received during the step 386 may be a percentage discount, a fixed price discount, etc. that is applicable to or available for one product, a group of products, etc.

5 The method 380 also includes a step 388 during which a verification of the adjustment in price for which the indication was received during the step 386. In some embodiments, the step 388 may not be necessary, such as when the indication received during the step 386 is from the controller 202. However, if the indication received during the step 386 is provided by a customer, such as when a customer is at a merchant and
10 wants to use a price discount that the customer believes he or she is entitled to, the merchant may want to verify with the controller 202 or some other device that the customer is entitled to receive the price discount. During a step 390, the merchant or merchant device may receive an indication of a verification of the adjustment in price.

15 In some embodiments, a record may be used in a verification process. For example, a record may include price adjustment information and a code that may verify the authenticity or validity of the record. When a customer presents the record to a merchant, the merchant can use the code to verify that the record and price adjustments are valid.

20 In other embodiments of a verification process, a customer may have to register a credit card number online with the controller 202. The credit card number is associated with one or more price adjustments that the customer is entitled to receive. The controller 202 may send the credit card number and price information to a merchant. The customer may then have to use the credit card at the particular merchant to verify that the customer is entitled to receive the price adjustments.

25 In some embodiments, the method 380 may include another step during which the merchant or merchant device adjusts a price of one or more products in accordance with the indication of an adjustment in price received during the step 386.

In all of the methods described herein, a subsidizer may subsidize some or all of the prices paid by a customer for one or more products or some or all of a price discount

or other adjustment offered by a merchant for one or more products. In some embodiments, the subsidizer will provide or allot an amount of money to the controller 202 and/or to a merchant and allow the controller 202 and/or the merchant to subsidize costs or prices depending on the customers they desire to interact with, the number and type of products being purchased by the customers, the availability of other price or cost adjustments, etc. In other embodiments, the subsidizer or a subsidizer device may receive a message or other indication from the controller 202 and/or a merchant each time a subsidy offer might be offered to a customer. The subsidizer or subsidizer device can determine whether or not to indicate or provide a subsidy offer to the customer, what the qualifying action is that may be associated with the subsidy offer, what the available price adjustment or subsidization amount should be, etc. The subsidizer might indicate such information to the controller 202, a merchant, and/or the customer. For example, a subsidizer may want to acquire fifteen customers in one month and thus may be willing to provide up to twenty-five dollars in price adjustments (*i.e.*, the subsidization amount) for each newly acquired customer, up to fifteen customers. The subsidizer might indicate this information to the controller 202 so that the controller 202 can develop or create qualifying actions that may help the subsidizer acquire customers along with price adjustments associated with the qualifying actions that may be usable by customers of one or more merchants. For example, if the subsidizer is an automobile dealer, the controller may associate a qualifying action that comprises the customer test driving a vehicle at the automobile dealer in exchange for a price adjustment at one or more restaurants. As another example, a qualifying action may comprise multiple occurrences of a qualifying action (e.g. a customer has to agree to visit a particular website x times during the next y days). In other words, the current invention contemplates that a qualifying action may need to be fulfilled over a plurality of instances and/or over a period of time. Such a multiple-action qualifying action may be beneficial to a subsidizer that is, for example, a retailer by "training" the customer to visit the retailer's establishment or web site. The controller 202 and/or the subsidizer may determine which merchants to associate the qualifying actions and available price adjustments with. In addition, the controller 202

and/or the subsidizer may notify potential merchants of the available subsidization amount.

Now referring to Figure 8, a representative block diagram of a controller, such as the controller 202, is illustrated. The controller 202 may include a processor, microchip, central processing unit, or computer 400 that is in communication with or otherwise uses or includes one or more communication ports 402 for communicating with customer devices and/or other devices. For example, if the controller 202 is connected to the customer device 204 via an Ethernet local area network and the customer device 206 via a cellular telephone network, the controller 202 may have an Ethernet adapter as one communication port 402 to allow the controller 202 to communicate with the customer device 204 and a connection to a cellular telephone network as another communication port 402 to allow the controller 202 to communicate with the customer device 206.

The controller 202 may also include an internal clock element 404 to maintain an accurate time and date for the controller 202, create time stamps for messages, data and other indications generated or sent by the controller 202 or received by the controller 202.

If desired, the controller 202 may include one or more output devices 406 such as a printer, infrared or other transmitter, antenna, audio speaker, display screen or monitor, text to speech converter, etc., as well as one or more input devices 408 such as a bar code reader or other optical scanner, infrared or other receiver, antenna, magnetic stripe reader, image scanner, roller ball, touch pad, joystick, touch screen, microphone, computer keyboard, computer mouse, etc. In addition, the controller 202 may include a voice recognition system or interactive voice response unit as an input device 408 to aid in or enable receiving and processing of indications. The controller 202 may also include a fingerprint scanner or reader, a retinal scanner, a voice analyzer, handwriting analyzer, or other biometrics data input device as an input device 408 to allow the controller 202 to identify customers and people directly. If desired, the controller 202 may also function as a customer device, a merchant device, a subsidizer device, etc.

In addition to the above, the controller 202 may include a memory or data storage device 410 to store software, databases, device drivers, indications, product information,

pricing information, etc. The memory or data storage device 410 preferably comprises an appropriate combination of magnetic, optical and/or semiconductor memory, and may include, for example, Random Access Memory (RAM), Read-Only Memory (ROM), a tape drive, flash memory, a floppy disk drive, a ZIP™ disk drive, a compact disc and/or a hard disk. The processor 400 and the data storage device 410 in the controller 202 may each be, for example: (i) located entirely within a single computer or other computing device; or (ii) connected to each other by a remote communication medium, such as a serial port cable, telephone line or radio frequency transceiver. In one embodiment, the controller 202 may comprise one or more computers that are connected to a remote server computer for maintaining databases.

A conventional personal computer or workstation with sufficient memory and processing capability may be used as the controller 202. In one embodiment, the controller 202 operates as or includes a Web server for an Internet environment. In such an embodiment the controller 202 may transmit and receive data related to indications, products, pricing, etc., and be capable of high volume transaction processing, performing a significant number of mathematical calculations in processing communications and database searches. A Pentium™ microprocessor such as the Pentium III™ microprocessor, manufactured by Intel Corporation, may be used for the processor 400.

Equivalent processors are available from Motorola, Inc., AMD, or Sun Microsystems, Inc. The processor 400 may also comprise one or more microprocessors, computers, computer systems, etc.

Software may be resident and operating or operational on the controller 202. The software may be stored on the data storage device 410 and may include some or all of the following: a control program 412 for operating the controller 202; a merchant database 414 for storing information about merchants; a customer database 416 for storing information about customers; and a subsidy database 418 for storing information regarding available subsidy offers. The controller 202 may also store, use, access, maintain, populate, etc. other databases, such as product database, a transaction database, etc.

Each of the databases 414, 416 and 418 and their use and potential data structure will be discussed in more detail below. As will be understood by those skilled in the art, the schematic illustrations and accompanying descriptions of the databases presented herein are exemplary arrangements for stored representations of information. A number

5 of other arrangements may be employed besides those suggested by the tables shown. Similarly, the illustrated entries of the databases represent exemplary information only.

Thus, those skilled in the art will understand that the number and content of the entries can be different from those illustrated herein. Not all of the databases 414, 416 and 418 will be used or needed in every embodiment of the methods disclosed herein or the system

10 200. Furthermore, some embodiments of the methods disclosed herein or the system 200 may use none or only some of the databases 414, 416 and 418. Of course, there may be embodiments of the methods disclosed herein or the system 200 where all of or more than the databases 414, 416 and 418 are used.

The control program 412 may control the processor 400. The processor 400
15 preferably performs instructions of the control program 412, and thereby operates in accordance with the present invention, and particularly in accordance with the methods described in detail herein. The control program 412 may be stored in a compressed, uncompiled and/or encrypted format. The control program 412 furthermore includes program elements that may be necessary, such as an operating system, a database
20 management system and device drivers for allowing the processor 400 to interface with peripheral devices, databases, etc. Appropriate program elements are known to those skilled in the art, and need not be described in detail herein. According to an embodiment of the present invention, the instructions of the control program 412 may be read into a main memory from another computer-readable medium, such as from a ROM to RAM.

25 Execution of sequences of the instructions in the control program 412 causes the processor 400 to perform the process steps described herein. In alternative embodiments, hard-wired circuitry may be used in place of, or in combination with, software instructions for implementation of some or all of the methods of the present invention. Thus, embodiments of the present invention are not limited to any specific combination of

hardware and software.

As previously discussed above, the merchant database 414 can be used to store information and data regarding merchants implementing the methods disclose herein or for which the controller 202 is completing one or more of the steps of the methods disclosed herein. The merchant database 414 may be populated, used, accessed, and/or updated by the controller 202 during any of the methods disclosed herein. A tabular representation of a possible implementation of, or data structure for, the merchant database 414 is illustrated in Figure 9.

The merchant database 414 preferably includes a merchant identifier field 450 which may contain identifiers or other identifying information for merchants, a name field 452 which may contain information regarding the names of the merchants identified in the field 450, a contact information field 454 which may contain contact information, such as postal addresses, telephone numbers, facsimile number, e-mail addresses, network address, etc. for the merchants identified in the field 450, a merchant type field 456 which may contain information regarding the classification or type designation for the merchants identified in the field 450, and an applicable subsidy offer field 458 which may include information regarding subsidy offers available from the merchant or other subsidizer to subsidize the prices for items offer by, or available at, the merchants identified in the field 450. In some embodiments, information regarding the subsidy offers identified in the subsidy offer field 458 may be found in the subsidy offer database 418.

As illustrated in the example merchant database 414 of Figure 9, the merchant 460 identified by the merchant identifier "M-981656" in the identifier field 450 and by the name "SALVADORES" in the name field 452, is designated as a restaurant in the merchant type field 456. Two subsidy offers, "SO-1258" and "SO-6281," are identified in the field 458 as being available for use by the controller 202 for the merchant M-981656. That is, at least two different subsidy offers can be offered to a customer trying to purchase food items or other products at the merchant "M-981656," each of the two subsidy offers presumably enabling the customer to receive a price discount on one or more products at the merchant "M-981656." Information regarding the subsidy offers

“SO-1258” and “SO-6281” can be found in the subsidy offer database 418 illustrated in Figure 11.

The merchant database 414 may also include information regarding what products are available at the merchant, the initial prices for the products, available or possible price adjustments for the products, qualifying actions or subsidy offers associated with the merchant, rules or procedures regarding which products to offer price adjustments for or to associated subsidy offers with, etc.

While the merchant database 414 illustrated in Figure 9 provides information for five merchants 460, 462, 464, 466 and 468 identified by the merchant identifiers “M-981656,” “M-720243,” “M-693462,” “M-212303” and “M-196707,” respectively, in the merchant identifier field 450, there is no limit to the number of merchants for which information can be stored in the merchant database 414 and different fields may be used in the merchant database 414.

As previously discussed above, the customer database 416 can be used to store information and data regarding customers. The customer database 416 may be populated used, accessed, and/or updated by the controller 202 during any of the steps of the methods disclosed herein. A tabular representation of a possible implementation of, or data structure for, the customer database 416 is illustrated in Figure 10.

The customer database 416 preferably includes a customer identifier field 500 which may contain identifiers or other identifying information for users or customers, potential users or customers, etc., a name field 502 which may contain information regarding the names of the customers identified in the field 500, a contact information field 504 which may contain contact information, such as postal addresses, telephone numbers, facsimile telephone number, e-mail addresses, etc. for the customers identified in the field 500, and a payment identifier field 506 which may contain information regarding credit cards, debit cards, frequent shopping cards, bank accounts, etc. associated with the customers identified in the field 500.

While the customer database 416 illustrated in Figure 10 provides information for seven customers 508, 510, 512, 514, 516, 518 and 520 identified by the customer

identifiers "C-12-12-123434," "C-49-12-437952," "C-47-83-971234," "C-92-46-982734," "C-09-23-178345," "C-03-04-196337" and "C-05-12-100194," respectively, in the customer identifier field 500, there is no limit to the number of customer for which information can be stored in the customer database 416 and different fields may be used in the customer database 416.

As previously discussed above, the subsidy database 418 can be used to store information and data regarding available subsidy offers. The subsidy database 418 may be populated, used, accessed, and/or updated by the controller 202 during any of the steps of the methods disclosed herein. A tabular representation of a possible implementation of, or data structure for, the subsidy database 418 is illustrated in Figure 11.

The subsidy offer database 418 preferably includes a subsidy offer identifier field 550 which may contain identifiers or other identifying information for subsidy offers available to customers or merchants, a name field 552 which may contain information regarding the names of the subsidizers associated with the subsidy offers identified in the field 550, a contact information field 554 which may contain contact information, such as postal addresses, telephone numbers, facsimile telephone number, e-mail addresses, etc. for the subsidizers identified in the field 552, an applicable merchants field 556 which may contain merchant identifiers or other identifying information regarding which merchants the subsidy offers identified in the field 550 can be used for, an available subsidy amount field 558 which may indicate the balances of money left for the subsidy offers identified in the field 550, and a description field 560 which may contain descriptive or other information regarding the subsidy offers identified in the field 550.

In some embodiments, the subsidy offer database 418 may also include rules or procedures regarding when to make a subsidy offer, which subsidy offer to make or present to a customer if more than one subsidy offer is available for a given merchant, etc.

For example, a subsidy offer offered to a customer may be based on the geographic location of the customer or the relative location of the customer with regard to one or more merchants or subsidizers. As another example, certain subsidy offers may only be available when a customer is looking for a particular merchant or a particular type of

merchant, indicating an interest in a particular product, indicating a willingness to spend over a certain amount, etc. In some embodiments, an available price adjustment and its associated subsidy offer may be dependent on the time of year, the occurrence of a holiday, the occurrence of some external event (e.g., a designated rise in the Dow Jones Industrial Average), etc. In other embodiments, merchants may designate acceptable subsidizers of price adjustments associated with the merchant. Similarly, subsidizers may designate acceptable merchants for which the subsidizer is willing to subsidize price adjustments.

As illustrated in the example subsidy offer database 418 of Figure 11, the subsidy offer 562 identified by the subsidy offer identifier "SO-6281" in the identifier field 550 is provided by "BOB'S INSURANCE COMPANY" and is applicable to the merchants identified as "M-981656" ("SALVADORES"), "M-720243" ("ACME HARDWARE"), and "M-196707" ("BONSAI"). The subsidizer, "BOB'S INSURANCE COMPANY," has a balance of ten thousand dollars, as shown in the field 458, that can be used to subsidize a customer's purchase(s) at the merchants identified as "M-981656" ("SALVADORES"), "M-720243" ("ACME HARDWARE"), and "M-196707" ("BONSAI"). As shown in the field 560, in order to receive, or be entitled to receive, a price adjustment or discount for one or more products, the customer is required to meet or talk with an insurance agent from "BOB'S INSURANCE COMPANY."

While the subsidy database 418 illustrated in Figure 11 provides information for four subsidy offers 562, 564, 566 and 568 identified by the subsidy offer identifiers "SO-6281," "SO-1258," "SO-5316" and "SO-0304" respectively, in the subsidy offer identifier field 550, there is no limit to the number of subsidy offers for which information can be stored in the subsidy database 418 and different fields may be used in the subsidy database 418.

Now referring to Figure 12, a representative block diagram of a customer device, such as the customer device 204, is illustrated. The customer device 204 may include a processor, central processing unit, microchip, or computer 700 that is in communication with or otherwise uses or includes one or more communication ports 702 for

communicating with the controller 202, merchant devices, subsidizer devices and/or other devices. For example, the customer device 204 may have an infrared or other transmitter as one communication port 702 to allow the customer device 204 to communicate with the controller 202. In addition, if the customer device 202 is connected to the controller
5 202 via an Ethernet local area network, the customer device 204 will preferably include an Ethernet adapter as a communication port 702 to allow the customer device 204 to communicate with the controller 202.

The customer device 204 may include one or more output devices 704 to allow a customer to provide or output information, messages or other indications to a customer,
10 such as a printer, audio speaker, infrared or other transmitter, antenna, display screen or monitor, text to speech converter, etc., as well as one or more input devices 706 for receiving information, messages and other indications from a customer, such as a bar code reader or other optical scanner, infrared or other receiver, antenna, magnetic stripe reader, image scanner, roller ball, touch pad, joystick, touch screen, microphone, computer
15 keyboard, signature capture device, computer mouse, etc. The customer device 204 may include a voice recognition system or interactive voice response unit as an input device 706 to aid in receiving and processing messages and other indications from a customer. The customer device 204 may also include a fingerprint scanner or reader, retinal scanner, handwriting analyzer, voice analyzer, or other biometrics data input device as an
20 input device 706 to allow the customer device 204 to identify a customer or verify the identity of a customer.

In addition to the above, the customer device 204 may include a memory or data storage device 708 to store information, software, databases, device drivers, customer information, customer identifications, indications, product information, pricing
25 information, etc. The memory or data storage device 708 preferably comprises an appropriate combination of magnetic, optical and/or semiconductor memory, and may include, for example, Random Access Memory (RAM), Read-Only Memory (ROM), a tape drive, flash memory, a floppy disk drive, a Zip™ disk drive, a compact disc and/or a hard disk.

The customer device 204 may also include an internal clock element 710 to maintain an accurate time and date for the customer device 204, create time stamps for information, indications, etc. generated at or received by the customer device 204, etc.

As previously discussed above, possible customer devices include a personal computer, portable computer, mobile or fixed user station, workstation, network terminal or server, telephone, radio, beeper or pager, kiosk, dumb terminal, personal digital assistant, facsimile machine, etc. If desired, the customer device 204 may also function as the controller 202, as a merchant device, as a subsidizer device, or some other device.

In one embodiment, the customer device is a wireless computing device that allows the customer to communicate with the controller while the customer is in a restaurant. For example, a customer may wish to query the controller about subsidy offers that are available to subsidize the customer's order which the customer has just ordered or is about to order. The customer may, in such an embodiment, input the items on the menu that he has ordered or is contemplating ordering, and input the name and/or location of the restaurant he is currently present in. Alternatively this location information could be transmitted to the controller via Global Positioning System (GPS) means. The controller could then transmit to the customer any available subsidy offers and the customer may accept. Any discount due to the customer as a result of accepting a subsidy offer could be communicated by the controller to the merchant device directly. Alternatively, a record indicating the adjusted price the customer is entitled to may be downloaded to the customer device. The customer may then, in turn, provide this record to the merchant device (e.g. by printing it out, or transmitting it via IR).

The foregoing description is considered as illustrative only of the principles of the invention. Furthermore, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and process shown and described above. Accordingly, all suitable modifications and equivalents may be resorted to falling within the scope of the invention as defined by the claims that follow. Further, even though only certain embodiments have been described in detail, those having ordinary skill in the art will certainly understand that many

modifications are possible without departing from the teachings thereof. All such modifications are intended to be encompassed within the following claims.

The present invention may be embodied as a computer program developed using an object oriented language that allows the modeling of complex systems with modular objects to create abstractions that are representative of real world, physical objects and their interrelationships. However, it would be understood by one of ordinary skill in the art that the invention as described herein can be implemented in many different ways using a wide range of programming techniques as well as general purpose hardware systems or dedicated controllers. In addition, many, if not all, of the steps for the methods described above are optional or can be combined or performed in one or more alternative orders or sequences without departing from the scope of the present invention and the claims should not be construed as being limited to any particular order or sequence, unless specifically indicated.

While specific implementations and hardware configurations for the controller 202 and the customer device 204 have been illustrated, it should be noted that other implementations and hardware configurations are possible and that no specific implementation or hardware configuration is needed. Therefore, many different types of implementations or hardware configurations can be used in the systems, devices, and with the methods disclosed herein and the methods and devices disclosed herein are not limited to any specific hardware configuration. Merchant and/or subsidizer devices may have the same configuration and components as either the controller 202 or the customer device 204.

Each of the methods described above can be performed on a single computer, computer system, microprocessor, etc. In addition, two or more of the steps in each of the methods described above could be performed on two or more different computers, computer systems, microprocessors, etc., some or all of which may be locally or remotely configured. The methods can be implemented in any sort or implementation of computer software, program, sets of instructions, code, ASIC, or specially designed chips, logic gates, or other hardware structured to directly effect or implement such software,

programs, sets of instructions or code. The computer software, program, sets of instructions or code can be storable, writeable, or savable on any computer usable or readable media or other program storage device or media such as a floppy or other magnetic or optical disk, magnetic or optical tape, CD-ROM, DVD, punch cards, paper tape, hard disk drive, Zip™ disk, flash or optical memory card, microprocessor, solid state memory device, RAM, EPROM, or ROM.

The term "computer-readable medium" as used herein refers to any medium that directly or indirectly participates in providing instructions to a processor for execution. Such a medium may take many forms, including but not limited to, non-volatile media, volatile media, and transmission media. Non-volatile media include, for example, optical or magnetic disks. Volatile media include dynamic random access memory (DRAM), which typically constitutes the main memory. Transmission media include coaxial cables, copper wire and fiber optics, including the wires that comprise a system bus coupled to a processor. Transmission media can also take the form of acoustic, electrical or electromagnetic waves, such as those generated during radio frequency (RF) and infrared (IR) data communications.

The connections or communications between customer devices, the controller 202, merchant devices, subsidizer devices, etc. discussed herein are only meant to be generally representative of cable, computer, telephone, vending or other communication or data networks and methods for purposes of elaboration and explanation of the present. The connections are also intended to be representative of, and include all or a part of, the Internet, the World Wide Web, and other privately or publicly operated networks, including wide area networks, local area networks, data communication networks or connections, intranets, routers, satellite links or networks, microwave links or networks, cellular telephone or radio links, fiber optic transmission lines, ISDN lines, T1 lines, etc. In addition, as used herein, the terms "computer," "customer device," "terminal," "client," "device" and "user device" are generally interchangeable and are meant to be construed broadly and to include, but not be limited to, all clients, client devices or machines, personal digital assistants and palm top computers, cash registers, terminals,

computers, point-of-sale devices, processors, servers, etc. connected or connectable to a computer or data communications network and all devices on which Internet-enabled software, such as the NETSCAPE COMMUNICATOR™ or NAVIGATOR™ browsers, MOSAIC™ browser, or MICROSOFT INTERNET EXPLORER™ browsers, can operate

- 5 or be run. The term "browser" should also be interpreted as including Internet-enabled software and computer or client software that enables or allows communication over a computer network and Internet-enabled or World Wide Web enabled, monitored, or controlled devices such as WebTV™ devices, household appliances, phones, etc.

- 10 The words "comprise," "comprises," "comprising," "include," "including," and "includes" when used in this specification and in the following claims are intended to specify the presence of stated features, elements, integers, components, or steps, but they do not preclude the presence or addition of one or more other features, elements, integers, components, steps, or groups thereof.